

Appl. No. 09/832,167
Amtd. Dated April 11, 2006
Reply to Office Action of December 14, 2005

Attorney Docket No. 81784.0235
Customer No. 26021

REMARKS/ARGUMENTS

Claims 1-50 are pending in the Application. By this Amendment, claims 1, 11, 20, 27, 35 and 42 are being amended to improve their form and to more clearly distinguish patentably over the prior art. No new matter is involved.

In Paragraph 1 which begins on page 2 of the Office Action, claims 1, 11, 20, 27 and 35 are objected to because the previous amendments to the claims are said to add the same limitations that are set forth in the claims prior to their being amended. In response to this objection, Applicants are amending claims 1, 11, 20, 27 and 35 to delete duplicated matter. Consequently, such claims should now be clear and definite.

In Paragraph 3 which begins on page 3 of the Office Action, claims 1-5, 8-14, 16-23, 25-27, 29, 32-35, 37 and 40-50 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. 2002/0175887 A1 of Yamazaki. In Paragraph 4 which begins on page 9 of the Office Action, claims 6, 7, 15, 24, 30, 31, 38 and 39 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamazaki. In Paragraph 5 which begins on page 11 of the Office Action, claims 28 and 36 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamazaki and further in view of U.S. Patent 6,057,820 of Irwin. These rejections are respectfully traversed, particularly in view of the claim amendments being made herein.

According to the Office Action, in Yamazaki, “selection voltages are applied in a selection period and non-selection voltages are applied in a non-selection period to the scanning electrodes”. Further, in Yamazaki, “in a period other than the selection period, application voltages for all scanning electrodes are fixed, and application voltages for all the signal electrodes are fixed”, and therefore, “it is clear that Yamazaki teaches where data is written into selected pixels”.

In Applicants' previous response, it was pointed out that the non-display area (background area) is also selected. However, if the "selected pixel" in Yamazaki is to be considered as corresponding to the "partial display area" and the "background display area is to be selected" in the present invention, as insisted in the Office Action, then Yamazaki fails to disclose or even suggest periodic setting of at least a portion of the lines in the pixels to be selected to different lines at a predetermined period. That is, Yamazaki fails to disclose or even suggest periodically changing at least a portion of the lines to be selected.

The Office Action refers to paragraphs 158, 169, 203, 210 and 243, among others, in Yamazaki. These describe that the selected lines in the partial display are always Y1-Y40. There is no description of the remaining lines, namely lines Y41-Y200, as being selected. In the present invention, in the background display area, the k rows by m columns area to be selected in the background display area is periodically changed at a predetermined period so the different lines are selected. In other words, the structure of the present invention would correspond to a configuration in Yamazaki wherein the lines Y1-Y40, for example, are selected during one frame and the lines Y1-Y39 and Y41 are selected during another frame. The sequential selection of lines Y1-Y40 only requires the driver circuit to sequentially output a selection circuit. However, selection of, for example, lines Y1-Y39 and Y41 in another frame and lines Y1-Y39 and Y200 in yet another frame cannot be realized by a structure that simply selects a portion of all pixels.

Thus, Yamazaki only discloses that lines Y1-Y40 are sequentially selected. Based on this, one of ordinary skill in the art would only achieve a structure in which only a partial area which is fixedly determined (that is, which does not change at all times) can be selected among all lines. A person of ordinary skill in the art would not be motivated to employ a method as in the case of the present invention in which an area which is partially different from an area to which the

background display data is previously written is selected and the background display data is written to the selected area at different timings.

In addition, in the case of the present invention, the display quality of the background display area is secured while the power consumption is reduced during a partial display mode. In Yamazaki, on the other hand, the display quality in the background display area cannot be secured because the same area is always selected. Moreover, Yamazaki fails to even suggest the necessity for selecting other areas.

Therefore, the present invention cannot be viewed as obvious from Yamazaki. This is so, even when the reference is interpreted in accordance with the discussion in the Office Action.

Similarly, in Irwin, there is no description or suggestion of selection of a portion of a partial display area and a background display area and periodic change, at a predetermined period, of the background display area to be selected. Therefore, even if a combination of Yamazaki and Irwin is attempted, the result would not make it obvious to one of ordinary skill in the art to arrive at the present invention, as defined, for example, in Claims 28 and 36.

Applicants have previously pointed out that the present invention further distinguishes over prior art references such as Yamazaki inasmuch as during at least one frame period under a partial display mode, a partial display area having pixels of s rows by m columns which is a part of a display having pixels of n rows by m columns, and an area having pixels of k rows by m columns which is a part of the background display area which is an area of the display of n rows by m columns different from the partial display area (that is, the background displayed area has pixels of $(n-s)$ row by m columns) are selected in one frame period, arbitrary display data is written into the partial display area, and background data is written into the area of k rows by m columns which is a part of the background display area.

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Claims 1, 11, 20, 27, 35 and 42 are being amended in order to more clearly distinguish patentably over the prior art. In the case of claims 1 and 11, the partial display area is further defined by the language "the partial display area forming part of the matrix comprising n rows and n columns". The background area is further defined by the language "the area of k rows by m columns forming a part of said background display area which is an area of the matrix of n rows and m columns different from the partial display area". In addition, the important limitation in accordance with the present invention is being added "and wherein row to be selected associated with pixels of said area of k rows by m columns in said background area is shifted every predetermined period". In the case of claims 20, 27, 35 and 42, such limitation is also being added. In view of this and the differences between the claimed subject matter and the prior art discussed above, claims 1, 11, 20, 27, 35 and 42 are submitted to clearly distinguish patentably over the cited art.

In the case of dependent claims 2-10, 12-19, 21-26, 28-34, 36-41 and 43-50, these claims depend directly or indirectly from and contain all of the limitations of one of the independent claims, so that such claims are also submitted to clearly distinguish patentably over the prior art.

In conclusion, claims 1-50 are submitted to clearly distinguish patentably over the prior art for the reasons discussed above. Therefore, reconsideration and allowance are respectfully requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6846 to discuss the steps necessary for placing the application in condition for allowance.

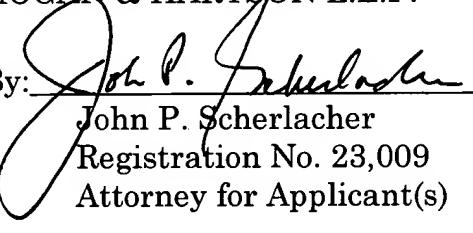
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Respectfully submitted,
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